



Business Value Dashboard

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Administration Guide

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Administration Guide

This guide describes the administrator tasks that you can perform in BVD.

Modify the settings

The Settings page displays your API key and enables you to change the look and feel of your dashboards and BVD using a custom style sheet.

To access

 **Administration > Settings**

Learn More

API Key

The API key connects your BVD data to your BVD instance. The key must be included in all of you

data streams and ensures that your data arrives in your dashboards.

You can request a new API key, for example if your old key has been compromised. To request a new key, click **Request New API Key**. After you confirm your decision, BVD displays your new key immediately. Remember to update your data senders to include your new API key.

API Key

```
44c355f0b6ef11e6bb615bbf36c84ab0
```

Requesting a new API key will invalid your existing one. In consequence you have to adjust all your data senders to use this new API key instead of the old one!

[Request new API key](#)

Style Customization

You can change the look and feel of BVD, for example, the color of the masthead. To do so, inspect the HTML element that you want to change, type the new style in the **Style customization** field and click **Upload changed style**.

To reset the style to the default, clear the contents in the **Style customization** field and click **Upload changed style**.

See also "[Use Custom Fonts in Your Dashboards](#)" below for detailed instructions on how to choose a web font other than Google Fonts for your dashboards.

Do It Yourself

Use Custom Fonts in Your Dashboards

BVD dashboards by default use fonts served by Google at <http://www.google.com/fonts>. To use custom fonts for your dashboards, do the following:

1. Use your preferred fonts in the Visio drawings of your dashboards, open the exported SVG file in a text editor, and then search for the string font. In SVG files, fonts are declared in CSS definitions similar to the following:

```

<style type="text/css">
<![CDATA[
    .st1 {fill:none;stroke:none;stroke-linecap:round;stroke-linejoin:round;stroke-width:0.75}
    .st2 {fill:#000000;font-family:Arial;font-size:3em}
    .st3 {fill:#000000;font-family:Courier New;font-size:3em}
    .st4 {fill:#000000;font-family:Metric;font-size:3em}
    .st5 {font-size:1em}
    .st6 {fill:none;fill-rule:evenodd;font-size:12px;overflow:visible;stroke-linecap:square;stroke-miterlimit:3}
]]>
</style>


```

Take note of the font family name, for example **Metric**.

2. Make sure your custom fonts are installed on a publicly accessible web server.

The web server must allow access to the font resources from other sites. To do so, it must include a properly configured Access-Control-Allow-Origin header in each reply to a font request.

3. Create a custom CSS font definition in BVD:

Open  **Administration > Settings** and type your CSS definition in the **Style customization** field, then click **Upload changed style**.

Example

```

@font-face {
    font-family: "Metric";
    src: url("https://www.example.com/fonts/metric.woff") format("woff");
}

```

Manage dashboards

The **Dashboards** page lists all available dashboards, and enables you to upload, delete, download, edit, or show or hide dashboards in the dashboards menu.

To access

 **Administration > Dashboards**

Learn More

This section includes:

- ["Dashboard Icons" below](#)
- ["Uploading Dashboards" on the next page](#)
- ["Downloading Dashboards" on the next page](#)
- ["Categorizing Dashboards" on page 8](#)
- ["Changing the Title of a Dashboard" on page 9](#)
- ["Selecting Widgets for Editing" on page 10](#)
- ["Using Dashboards as Templates" on page 11](#)

Dashboard Icons

Use these buttons to manage your dashboards as follows:




Upload a dashboard from an SVG file. The maximum dashboard size is 20 MB.



Delete a dashboard from BVD.




Download a dashboard to an SVG file.

Note: The  **Download** button is not available when working with BVD on mobile devices.



Edit a dashboard in BVD.



Show or hide a dashboard in the  **Dashboards** menu. This action does not impact permissions to view dashboards granted through roles. To change view permissions, see ["Manage users" on page 16](#).

Tip: On mobile devices, click the buttons twice to trigger their actions.

The following icons notify you of missing or incorrect configurations when editing a dashboard:



Not all required fields of the widget have been completed; for example, the data channel has not been selected yet. You can save dashboards that have warnings.




The widget configuration contains errors (for example, incorrect color values, incorrect HTTP protocol in web page widgets, and so on). You must first resolve the errors before the dashboard can be saved.



The widget has unsaved changes.


Uploading Dashboards

You can upload an SVG file as often as you want. Edit the dashboard, and in the dashboard properties click  **Replace Dashboard**. The maximum dashboard size is 20 MB. If the file already exists, BVD replaces the previous version of the file with the newer version and opens the associated dashboard for you to edit. The newer version does not overwrite existing dashboard properties or widgets, only new widgets are added.

Deleting widgets from an SVG file only deletes the widgets from the dashboard. The configuration of the deleted widgets remains in the database so that you can easily re-upload a previous version of an SVG file to reactivate the previously deleted widgets.

Downloading Dashboards

When you upload an SVG file created from Visio, the SVG file usually does not have any data channels configured. This task is best done in the Dashboards UI.

To obtain a version of your SVG files with the data channels configured, you can download the dashboards from BVD by using the  **Download** button in the Dashboards UI. The download creates an SVG file with the original name.


You can then transfer this file to another BVD instance and upload it there, or store it in a safe location for backup purposes.

Note: The downloaded SVG file does not include the assigned categories.

Categorizing Dashboards


To be able to grant dashboard permissions to a user, a dashboard must have one or more categories assigned. Categories are arbitrary text strings that you enter in the Categories field in the dashboard properties. Once entered, a category can be selected and added to any dashboard.

Dashboard Properties


File:
omi_sample.svg 

Title:
omi_sample


Categories:
✕ omi ✕ sample

Background Color:
#000000 

When you create a user role, you can assign view or full control permissions to a dashboard category. This restricts a user's access to dashboards of the specified category. See also ["How to Set Permissions" on page 22](#).

	View	Full Control
All	<input type="checkbox"/>	<input type="checkbox"/>
Assigned to category	<input type="checkbox"/>	<input type="checkbox"/>
omi	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
sample	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Not assigned to category	<input type="checkbox"/>	<input type="checkbox"/>
 Manage categories		

Changing the Title of a Dashboard

When you upload an SVG file, the file name automatically becomes the title of the dashboard. This behavior can make the  **Dashboards** menu look very technical:

Consider changing the title of your dashboards in the dashboard's properties:

 **Administration > Dashboards >  Edit**


In the **Title** field, enter a descriptive name.

Note: The following characters are not allowed in the dashboard title: ! [] / \ = + ; ? * % &

Dashboards 

Filter Dashboards 

 2-AQ_world

 omi_sample

Dashboard Properties

File:
omi_sample.svg



Title:
omi_sample

Categories:

 omi  sample

Background Color:
#000000



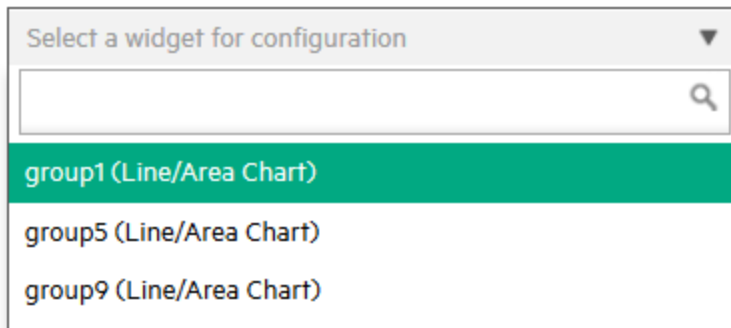
Selecting Widgets for Editing

To edit the properties of a widget, edit the dashboard that contains the widget and then click the widget. The properties are displayed to the right of the dashboard for you to edit. When done, click **Apply** or **Save**.

If your dashboard contains widgets that are stacked on top of each other so that you cannot access the ones below, do one of the following:

- **Two widgets.** If there are only two widgets stacked on top of each other, click the top one once and once again. The second click selects the one below.
- **More than two widgets.** If you have a stack of more than two widgets, go to the dashboard properties, and under **Widgets** click **Select a widget for configuration** to open a list of available widgets:

Widgets




The image shows a dropdown menu titled "Select a widget for configuration" with a downward arrow. Below the title is a search bar with a magnifying glass icon. The menu lists three options: "group1 (Line/Area Chart)" which is highlighted in green, "group5 (Line/Area Chart)", and "group9 (Line/Area Chart)".

Select the widget you want to edit to access the widget's properties.

Using Dashboards as Templates


Use existing dashboards as templates in order to create multiple instances that use the same widgets but different data.

Templates consist of the original dashboard and a number of individual instances, which can be viewed in the  **Dashboards** menu.

Follow these steps to convert a dashboard into a template:




1. Access the properties of the dashboard you want to use as a template:

 **Administration > Dashboards >  Edit**

2. Click on the dimension that you want to use as a variable for the instances, for example  dim.
3. Click **Yes** in the resulting dialog to open the Template Manager.




The original dashboard is automatically added as the first instance of the template. For more information, see ["Manage templates" on the next page](#).

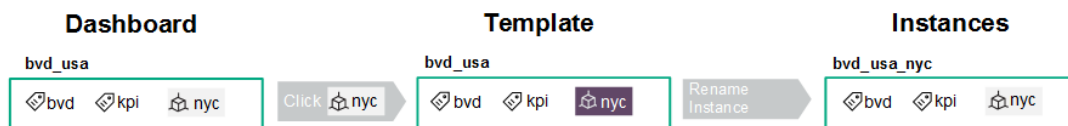
Example



You have a dashboard with a widget that uses the data channel   . You have two more data channels that, compared to the first data channel, differ only in the dimension

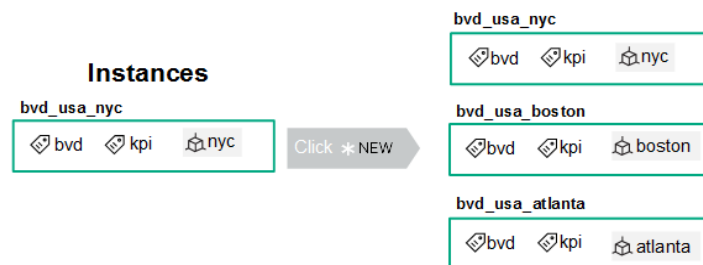
location:



Instead of creating a new dashboard for every location, click the dimension  in the existing dashboard and click **Yes** in the resulting dialog. This converts the dashboard into a template using the dimension  as variable. The original dashboard is automatically added as the first instance. Rename the instance and click **Save**.



After this, create one instance of the template for every location by choosing different values for the variable **location**.



This results in three individual dashboard instances. The dashboards show different data for the widget that is using the data channel.


Manage templates

The **Template Manager** enables you to edit, download, and delete dashboard templates. You can add new instances, or edit and delete existing ones.

To access

 **Administration > Dashboards**

Choose a dashboard, click  **Edit**, then select the dimension that you want to use as a variable for your instances, for example  dim. Click **Yes** in the resulting dialog.

Alternatively, choose an already created template and click  **Edit**.

Learn More

This section includes:

- ["Licensing for Templates and Instances" below](#)
- ["Template and Instance Icons" on the next page](#)

Licensing for Templates and Instances

The number of dashboards you are entitled to create depends on the suite license you have obtained.

Each instance counts as one dashboard. The template itself is not counted.

Template and Instance Icons

Use these buttons to manage your dashboard templates as follows:



Delete the template and all its instances from BVD.

Caution: Deleting the template will also delete all instances of the template. To only delete a single instance, use the delete button in the Instances pane.



Download the template to an SVG file.



Edit the template.

Use these buttons to manage your instances as follows:




Add an instance of the template.



Delete an instance of the template. Click **undo** after the deletion to restore the deleted instance.



Show or hide the instance in the  **Dashboards** menu. This action does not impact permissions to view dashboards granted through roles. To change view permissions, see ["Manage users" on page 16](#).

Tasks

This section includes:

- ["How to Add New Instances" on the next page](#)
- ["How to Edit Instances" on the next page](#)
- ["How to Modify Templates" on page 16](#)

How to Add New Instances

After creating the dashboard template, the original dashboard is automatically added as the first instance of the template.

Add additional instances by clicking ***New** in the middle pane. On the right pane, you can edit the title of the dashboard (recommended), the categories, and variables.

If you do not edit the values of the variables, the widgets will show the default values of the template.

For more information, see ["How to Edit Instances" below](#).

How to Edit Instances

Click an instance in the middle pane to open the properties on the right.

Edit any of the following properties:

Title

Recommended. Change the title of the instance in order to differentiate between the similar dashboards.

Categories

Instances inherit the categories that are assigned to the template, but can also have individual categories assigned to them. Remove or add new categories to restrict a user's access to dashboards of a specified category. For more information, see ["Categorizing Dashboards" on page 8](#).

Variables

The Variables section displays the dimensions you selected as variables when creating the template, and the available values of the dimensions. Change the values to create individual instances. By default, the placeholder `Variables from template` indicates that no value is assigned and the widget shows the default values of the template. To add more variables, see ["How to Modify Templates" on the next page](#).

If you remove all variables, the instances will be deleted and the template will be converted back into a dashboard.

You can use template variables in URLs and embedded web pages. For more information, see [Web Page Widgets](#).

Tip: If recently added variables and/or values are not displayed, select another instance in the right pane, then reselect the instance you want to modify.

How to Modify Templates

Editing Templates

Click the  **Edit** button in the left pane.



Edit any of the general Dashboard Properties, or select a widget for editing.

To add more variables to your template, select a widget for editing. Click on the dimensions you want to use as variables and save the template.

Saving the modified dashboard template will apply these changes to all instances.

Make sure to assign different values of the variables to each instance. If no values are assigned, the instances will show the default values of the template.

Replacing Templates

You can upload an SVG file as often as you want. Click the  **Edit** button in the left pane, and in the Dashboard Properties click  **Replace Dashboard**. Upload a new file with the same name.

Alternatively, click  in the **Dashboards** page and upload a new file with the same name.

You can choose to replace the SVG only or replace both the SVG and the instances:

Click **Replace SVG** to replace the previous version of the template with the newer version while preserving the instances. The newer version does not overwrite existing dashboard properties or widgets, only new widgets are added. The changes of the new dashboard template are applied to all instances.

Click **Replace Template** to replace the previous version of the template with the newer version while removing the previous instances. The newer version overwrites existing dashboard properties and widgets.

Manage users


Use the **Users and Roles** page to create users and groups and to define roles and permissions. To reduce the effort and complexity involved in configuring roles for individual users in BVD, permissions are granted only through roles.

You can specify roles either by assigning them to a group (so that all members of the group are assigned the same roles) or by assigning roles to a user directly. The user and group configuration depends on the functions the user or group of users fulfill, as well as the tasks that they perform.

For a suggested workflow and overview of the steps involved in setting up users, groups, and roles, see ["Best Practices" below](#).

For a step-by-step description of the tasks you can perform through user management, see ["Tasks" on page 20](#).

To access

 **Administration > Users and Roles**

Learn More

This section includes:

- ["Best Practices" below](#)
- ["Roles and Permissions" on the next page](#)
- ["Permissions for Templates and Instances" on the next page](#)
- ["Users and Groups" on page 19](#)
- ["Super-Admin User" on page 19](#)
- ["LDAP Users" on page 20](#)

Best Practices

Below is a set of planning best-practices and a suggested workflow for setting up user management in BVD:

1. Before you configure users, groups, and roles, you should map out the required roles and their relevant permissions, as well as the users and groups you intend to assign the roles to. For example, enter the following information in an Excel sheet:
 - a. A list of users who are to access BVD, edit, and create dashboards. Gather appropriate user details such as user names, logins, and initial passwords. Although not needed to define users, at this stage it might be useful to also collect user contact information such as email addresses.
 - b. If multiple users require similar permissions, create a list of groups, and the users that should belong to each group.

- c. The appropriate permissions for each role. To aid in this process, review the Permissions Reference section to learn about dashboard categories and resources for which permissions can be granted. For details, see ["Permissions Reference" on page 23](#).
2. Create roles and assign relevant permissions.
For step-by-step instructions on how to create and configure a role, see ["How to Create Roles" on page 21](#).
3. Create groups and grant them the appropriate roles.
For step-by-step instructions on how to create a group, see ["How to Create Groups" on page 21](#).
4. Create users, grant them the appropriate roles and place them in the appropriate groups.
For step-by-step instructions on how to create a user, see ["How to Create Users" on page 20](#).

Roles and Permissions

BVD enables you to fine-tune permissions management by applying permissions within roles. Permissions enable you to restrict the scope of a role. You can assign roles to users and groups enabling access to specific areas of BVD.

Permissions consist of resources, for example, **Dashboards**, to which operations, for example **View**, are applied.

- When the **View** operation is one of the resource's available operations and you select one of the other available operations, the **View** operation is also automatically selected.
- The **Full Control** operation automatically includes all operations available on the resource. When applied, the other operations are automatically selected.

For a list of available resources and descriptions of operations in BVD, see ["Permissions Reference" on page 23](#).

Permissions for Templates and Instances

For dashboard templates, you can either assign **View** or **Full Control** permission for the template itself, or assign permissions only for specific instances.

This depends on the categories you assign to the template and each instance.

If you grant a user or group **Full Control** or **View** permission for a category assigned to the template, the user or group will have these permissions also for every instance of the template.

If you grant a user or group **Full Control** or **View** permission for a category assigned to an instance, the user will have these permissions only for that instance.


Note that granting a user or group **Full Control** permission for a category assigned to an instance, but not for a category assigned to the template itself, has the same effect as granting them **View** permission. Users or groups are only able to manage the instance if they have **Full Control** permission for a category assigned to the template.

For information on how to set permissions, see ["How to Set Permissions" on page 22](#).

Users and Groups

- **Groups.** Groups make managing roles more efficient; instead of assigning roles to each user one at a time, you can group users who are assigned the same roles into a single unit.
- **User Types.** BVD supports different user types:

Users with the appropriate dashboard permissions can view, edit, or create dashboards and instances. They can download tools and samples in the Resources menu to aid in the development


of dashboards and the integration of data. Users with edit permissions can view the  **Error Notifications** icon on the menu bar. This icon is useful when binding dashboards to data sources. Clicking the icon displays the error list.

Administrator users (users with super-admin permissions) have the following capabilities:

- Full control and view on all dashboards.
- Manage users, groups, and roles, including the creation and deletion of dashboard categories.
- Apply custom style sheets and reset API keys in the BVD system settings.

Super-Admin User

One built-in super-admin user is defined for every installation of BVD. The login and the password for this account are specified during the BVD configuration.

The built-in super-admin is not listed among the users in user management. If you have logged in as the super-admin, you can change the user's information, including password and contact information in the **My Account** page in the  **Personal User Settings** menu.

You can apply **Super-Admin** permissions to other users in the system. These super-admin users can be modified in user management. For information on how to grant super-admin status to a user, see ["How to Create Users" on the next page](#).

Note: Super-admins have all permissions assigned and are the only user type that can work with user management and system settings.

LDAP Users

To obtain more user management capabilities and security, we recommend using external LDAP user management. You can apply the **LDAP User** type when creating or editing users to manually configure them as LDAP users. LDAP users will be authenticated against the chosen LDAP server. For information on how to configure BVD to work with LDAP, review the suite online help.

Tasks

This section includes:


- ["How to Create Users" below](#)
- ["How to Create Groups" on the next page](#)
- ["How to Create Roles" on the next page](#)
- ["How to Set Permissions" on page 22](#)

How to Create Users

1. Click **Create New User** on the user management screen.
Alternatively, access the **Manage Users** pane and select **New User**.
2. In the Properties section, enter the required user name, login, password, and optional email.
3. *Optional.* If LDAP is enabled, you can select the **LDAP User** check box to mark the user as a manually-created LDAP user. For information on LDAP, see [LDAP Authentication and Mappings](#).
4. Select the groups the user will be a member of.
5. Assign roles or (*optional*) set the user as a Super-admin with all permissions assigned. When finished, click **Create User**. For information on the Super-admin user type, see ["Super-Admin User" on the previous page](#).

The user's basic information, as well as groups they belong to and roles assigned and inherited from groups, now appears on the right of the **Manage Users** pane when selecting the user.

To delete existing users, select **Manage Users**, select one or more users you want to delete, and click the Delete User or Users button.

Tip: In the Manage Users pane ( **Administration > Users and Roles**), you can click the **Deactivate** button to apply the **Inactive User** flag to users who are set to be temporarily inactive, for example, while the administrator is setting up roles and groups or if the user is on vacation or leave. Inactive users cannot log on to BVD.

How to Create Groups

1. Click **Create New Group** on the user management screen.
Alternatively, access the **Manage Groups** pane and select **New Group**.
2. In the Properties section, enter the required group name and optional description.
3. *Optional.* If LDAP is enabled, you can search for and select the LDAP groups that are mapped to the BVD group. For information on LDAP, see [LDAP Authentication and Mappings](#).
4. Add group members and assign roles in the relevant sections of the group editor. When finished, select **Create Group**.

Tip: You can select multiple users to add to the group by clicking the ... button next to the **Add user...** field. The **Select Users** editor opens. Select a single user, and then hold down the **Ctrl** key while you click other users that you want to select.

When working with BVD on a mobile device, make sure to click a user twice to select it.

The group's basic information, including roles assigned, now appears on the right of the Manage Groups pane when selecting the group. You can also navigate between groups in the group's information pane.

To delete existing groups go to the **Manage Groups** pane, select one or more groups you want to delete, and click the Delete Group or Groups button.

How to Create Roles

1. Click **Create New Role** on the user management screen.
Alternatively, access the **Manage Roles** pane and select **New Role**.
2. In the Properties section, enter the required role name and optional description.
3. In **Permissions**, you can select the relevant category and set the appropriate permissions by

checking the related boxes, or use the drop-down menus on each permission summary.

For a list of permissions and related descriptions see ["Permissions Reference" on the next page](#).

For a detailed task on setting permissions, see ["How to Set Permissions" below](#).

If you have already created users or groups, you can assign them during role creation or editing.
When finished, select **Create Role**.

To delete existing roles, select **Manage Roles**, select one or more roles you want to delete, and click the Delete Role or Roles button.

Note: When there are more than 1000 users in the system, the user search box is no longer displayed. Click the ... button to access the user list and search filter dialog box.

How to Set Permissions

In this task, you set or modify the permissions in BVD roles. Users require permissions to view, edit, or create BVD dashboards, templates, and instances.




1. In the **Users and Roles** page or in the **Manage Roles** page, create or edit the role you want to configure.
2. Scroll to the permissions section in the **Create Role** or **Edit Role** page.
3. Expand **Dashboards > Categories** and assign an operation to one or more dashboard categories:
 - **All.** To grant permissions to all dashboards and instances regardless of the category, click **View** or **Full Control** for **All**.
 - **Assigned to category.** To grant permissions to all dashboards and instances with any category, click **View** or **Full Control** for **Assigned to category**.

Alternatively, to grant access to individual dashboard categories, select the appropriate category.
 - **Not assigned to category.** To grant permissions to all dashboards and instances without a category, click **View** or **Full Control** for **Not assigned to category**.
4. Click **Manage Categories** to add new categories to the permissions list. You can also delete categories from the list if they are no longer needed.

Note: Changes to a user account are only fully available after the user whose account was changed logs in again to BVD.

Permissions Reference


Dashboards

Categories	All	<p>Grants view or full control permission for all dashboards (with or without categories assigned).</p> <p>Full control on All grants the following additional permissions:</p> <ul style="list-style-type: none"> • Upload dashboards. • Convert dashboards into templates. • Delete dashboards, templates, and instances. • Create and delete categories, and assign categories to dashboards and instances. • Download tools and samples from the  Administration > Resources menu. 	
	Assigned to category <category> Not assigned to category	View	<p>Grants permission to:</p> <ul style="list-style-type: none"> • View dashboards and instances in the  Dashboards menu. • Make a dashboard the default dashboard.
		Full Control	<ul style="list-style-type: none"> • Edit dashboards in the Dashboards page. • Show or hide dashboards in the  Dashboards menu. • Download dashboards. • Convert dashboards into templates. • Edit, download, and delete templates. • Edit and delete instances.

Data Collectors

The **Data Collectors** page enables you to create, execute, and manage queries on a database in order to collect historical data. To visualize that data and create lightweight reports, you can create dashboards that use this data.

To access

 **Administration > Data Collectors**

Learn More

This section includes:

- ["Query execution, syntax, and examples" on the next page](#)
- ["Data channel" on page 26](#)
- ["UI reference" on page 27](#)

Query execution, syntax, and examples

Query execution

You can create on-demand reports from a Vertica database by defining queries in the Data Collector UI and displaying the queried data in a dashboard. The queries you specify are executed on the Vertica database every time a dashboard is loaded that is using this data.

The query is executed directly in Vertica; no data is being cached in BVD. Note that this might have a performance impact on the Vertica database.

If you use the **Default** format for your query, each row of data that is returned can be used for one widget.

If you use the **Use in Widget Group** format instead, each row of data relates to one array that can be used for one widget group. When using the data channel created by the data collector, you cannot add widgets with time dimensions to a widget group.

Query syntax

- The query must contain a `SELECT` statement.
- The query must not contain a semicolon.
- If the data is used in widgets with time dimensions (for example Line Charts), the query must return a column with the name `timestamp`. The timestamp must be a string representing an [RFC2822](#) or (a variant of) an ISO 8601 date.
- If the data is used in a Widget Group, the query must return a column with the name `id` that contains unique values.

Tip: If you have columns for `timestamp` and `id` that use different names, use the `SELECT AS` statement to rename the columns in the query result. For example, use `SELECT country, town, store, item, time_stamp AS timestamp, sales_id AS id FROM Sales` to rename `time_stamp` to `timestamp` and `sales_id` to `id`.

Query examples

The following queries are examples for different use cases:

- **Show the top 50 results**

By selecting only a reduced number of records (50 in this example), you can reduce the performance impact on the Vertica database.

Tip: Only select more than one element if you want to display that data in a time dimension widget. Otherwise, the latest value (`LIMIT 1`) is sufficient.

When using the **Use in Widget Group** format, you can use the `LIMIT` statement to specify the number of widgets displayed in the group.

```
SELECT * FROM products_2016 ORDER BY number_sales ASC LIMIT 50
```

- **Define a specific time frame**

If you want to use the queried data in widgets with time dimensions (for example a Line Chart), you need to define a specific time frame to make sure that the widget displays the data for the time frame you are interested in.

```
SELECT * FROM Orders WHERE Date BETWEEN '1/1/2014' AND '12/31/2014'
```

Data channel

For every query, a new data channel is created. The execution result of the query serves as the data source for the data channel.

In order to clearly identify each data channel, the query name is added as the first tag. You can add additional tags when adding or editing a query.

Limitations

The following limitations exist for data collectors:

- You cannot execute queries that return data bigger than about 5 MB. The exact maximum depends on the data package that BVD receives from Vertica based on the query.
- If you use the data in widgets with time dimensions, the data is displayed starting with the latest available time stamp instead of today's date and time. Due to this, make sure to properly define the time frame you are interested in when executing the query.
- If you use the data in widgets with time dimensions, you can use the Chart Period property to set the period of time for which the widget will display data. However, the time period must be calculated and specified in minutes.

Example: If you want the widget to display data for the last 7 days (starting from the latest time stamp in the execution result), calculate $7 * 24 * 60 = 10,080$ and enter 10,080 as the Chart Period.

- If the data is used in a Widget Group, you cannot add widgets with time dimensions (for example Line Charts) to the group.

UI reference

Use these buttons to manage your queries as follows:



Add a new query.



Set up a database connection, or modify the existing database connection. The database must be a Vertica database, and you cannot define multiple database connections. All queries are executed on the specified database.



Edit the query.



Duplicate the query.



Execute the query.



Delete the query.

Tasks

This section includes:

- ["How to set up a database connection" on the next page](#)
- ["How to add queries" on page 29](#)

How to set up a database connection

Click  **DB connection settings**. Specify the following database settings:

Important: At the moment, only Vertica databases (version 8.0.1 and 8.1.1) are supported. Micro Focus strongly recommends implementing TLS 1.2 encryption to connect to the Vertica database. Note, however, that BVD does not support SSL Mutual Mode.

- **Host name**
- **Port**
- **TLS.** If checked, the database connection must be set up with TLS and you must upload the corresponding CA certificate in PEM format by clicking **Attach certificate**.
If you use a self-signed certificate, Micro Focus recommends to replace it with a CA issued certificate instead. For more information, see the *BVD Troubleshooting Guide*.

If you do not enable this setting, BVD still tries to connect to Vertica via TLS. If that fails, BVD uses HTTP.
- **DB name**
- **Login.** For security reasons, we recommend specifying a user with view-only permission.
- **Password**

Once you have specified all mandatory fields, you can click **Test Connection** to test the database connection.

Click **Save settings** to save the database settings.

How to add queries

Note: You must have a database connection set up in order to execute queries. For details, see ["How to set up a database connection" on the previous page](#).

Click *** New**. Specify the following query settings:

- **Query name.** For easier identification, the query name should reflect the data you are collecting, for example "Data between 2015 and 2017" or "Query for Location A". The query name must be unique. It is added as the first tag of the generated data channel.
- **Description.** *Optional.* Describe which data you want to retrieve with this query.
- **Tags.** Add additional tags to the data channel which describe or differentiate the queried data.
- **Format.** Decide if you want to use the **Default** format or the **Use in Widget Group** format. If you want to use your queried data in a widget group, the query must return a column with the name `id` that contains unique values.
- **Query.** Enter the query you want to execute on the defined database. The query must contain a `SELECT` statement and must not contain a semicolon at the end. For more information, see ["Query execution, syntax, and examples" on page 25](#).

Once the query is specified, click **Run** to test which data the query returns. Only the first five rows of data are returned.

Click **Save Query** to add the query, or **Cancel** to exit without saving.

Resources

BVD provides an extensive set of resources to help you develop dashboards and integrate data:

Visio Stencil (required)

`BusinessValueDashboardStencil.zip`. Contains the BVD widgets for Visio. Start Visio; in the **Shapes** window, click **More Shapes > Open Stencil** and select the extracted BVD stencil file.

You can also save the stencil file to `C:\Users\<user name>\My Documents\My Shapes` folder and then access the BVD stencil in Visio in **More Shapes > My Shapes**.

Visio Dashboard Template (useful)

`Dashboard_Template.zip`. Contains a Visio template with an embedded macro. The macro

exports your Visio drawing to SVG each time you save it. The SVG file has the same name as the Visio drawing and is stored in the same folder.

You can add the BVD template to Visio by specifying the template file name in **Visio Options > Save > Default personal templates location**.

Visio Add-in (useful)

VisioAddIn.zip. Contains an installer for a Visio ribbon called **Dashboard**. The button **Export Dashboard** in the ribbon exports your Visio drawing to an SVG file with the same name and in the same folder as the drawing itself.

Make sure you have administrative privileges when installing the Visio Add-in.

Data Generator Sample (interesting)

samplegen.zip. Contains a VBScript and a batch file to send data to the OMi sample dashboard. The batch file prompts you for the URL of your data receiver, your API key, and the HTTP proxy and port.

Sample OMi Status Dashboard (interesting)

omi_sample.zip. Contains the Visio drawing of the OMi sample dashboard. The dashboard is the target of the data sent by the data generator VBScript. You can use it as the basis for creating your own OMi event and KPI status dashboards.

AO-Bank Sample Dashboards (useful)

ao-bank.zip. Contains the Visio files for the AO-Bank sample dashboards, which you can view at the [BVD demo](#).

AO-Cellular Sample Dashboards (useful)

ao-cellular.zip. Contains the Visio files for a sample cellular provider.

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Feedback on Administration Guide (Business Value Dashboard 10.63)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to ovdoc-asm@hpe.com.

We appreciate your feedback!